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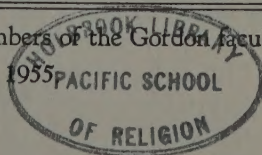
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EDITORIAL: A NEW JOURNAL

This editorial introduces a new, scholarly journal to the Christian and general public. It will be noted that the name of the school at which the members of the editorial board teach has been incorporated in the title. Because of the diversity of individual viewpoints on the part of the various persons involved in this undertaking, it seems wise to make clear at the outset the relation between *The Gordon Review* and the School from which it takes its name.

This journal is not an official publication of Gordon College or Gordon Divinity School. It is rather an independent effort spontaneously undertaken by the persons whose names are listed as comprising the official staff of the publication. While each one is a signer of the statement of faith of the Gordon schools and consequently subscribes to all of the great, historic, Christian doctrines enunciated in that document (see the *Gordon Catalog* for explicit statement), each is personally responsible for the particular form of expression and application which he has made of these truths. The School takes no responsibility for the individual opinions expressed here.

This publication does not desire to support any view which is contrary to the Holy Scriptures, our only infallible rule of faith and practice. Since even the most consecrated Christians, however, are not agreed on their understanding of all of the details of Christian doctrine, there will naturally be a variety of viewpoints expressed here as regards certain of the more complex aspects of Christian teaching. It is none the less hoped that in respect both to the relations between the several writers and between the *Review* and its readers a spirit of tolerance and Christian unity shall prevail. The ancient dictum well expresses our standard: in the essentials of the faith unity; in non-essentials, liberty; in all things, love.

As we bring out this new publication, a spirit of optimism pervades the *Review* staff. We feel that God has given us new hope and new opportunities even in these difficult days. We rejoice in the abundance of new knowledge and significant insights which are available today both within and without the Christian Church. We see the years ahead, God willing, as a time in which the people of God, profiting by the fruits of God's mercy, may enter a new period of vigor of thought and expression which will challenge the mind of the world to consider seriously and prayerfully the claims of Christ in every aspect of life and culture.

WHY ANOTHER JOURNAL?

This is a question which many of our academically experienced readers have undoubtedly asked already. Do we not have enough in the way of Christian publications burdening the presses now? While it is true that of some types of Christian literature there is a veritable deluge, we must not overlook the fact that the type of journal which this issue launches is almost non-existent in evangelical, Christian circles. This is perhaps the first point that ought to be emphasized. This is a scholarly review *from the perspective of the historic Christian faith*.

Furthermore, this is not another theological journal, as important as such publications are. It is true that we will be concerned with theology in various articles; however, the scope of *The Gordon Review* is much broader than the confines of even Christian theology. Theology in this journal will have its place as one discipline among others; the latter will include the liberal arts and natural science as well.

Our goal has several aspects to it. It is hoped that our efforts will be of real service to the school with which we are immediately associated. Our students will have the opportunity to acquaint themselves with scholarly material in the various fields mentioned above, written by men with whom they are, in many cases, already acquainted.

It is well known that it is more than difficult to challenge the average college or seminary student to sustained, high-level reading even while he is in course. It is almost beyond hope to expect that a significant number will maintain the few good reading habits to which they have been temporarily conformed, after they graduate. When attention is given in this respect to the academic journals, it becomes clear that the boundaries of Never-never Land have been reached. Few students are aware of, much less give attention to, the contents of scholarly periodicals, although surrounded by all the formally administered inducements to education.

For an instructor to expect his students (even a few of them) to continue, after graduation, a regular examination of significant periodical literature is to reveal only his own naïvete. However, when the contributors to an academic, Christian journal are generally known to students, personally and as instructors, there would appear to be good reason to feel that at least a significant few would not only acquire good reading habits while in college, but would continue them thereafter.

These values are not only significant academically, but from the point of view of alumni loyalty as well. A tie maintained with a school's graduates whereby that school continues to serve its graduates cannot help but improve the relationships between the two.

But, it is not only our school with its students and graduates that *The*

Gordon Review hopes to serve. We are located in New England. Here, generally, the intellectual and cultural level is quite high. Our influence as evangelicals is to some extent contingent upon our ability to challenge the attention of representatives of our local culture. And, this is not an alien responsibility thrust on us from without; it is part of our privilege and duty as Christians to challenge *every* aspect of modern life in the light of God's revelation. Therefore, this is not just a matter of local import and significance. This is the duty of Christ's people throughout our nation and the world: to challenge the world and our own constituency to bring every thought into captivity to Jesus Christ. It is particularly for this reason that the *Review* should have a wide appeal — including Christians of academic and others interest outside of New England also.

THE PHILOSOPHY BEHIND THIS EFFORT

The universe in which we live, ourselves included, is one because it was created, and is sustained, by the triune God. Thus, every aspect is able to be related to every other aspect. Because it is the work of an intelligent being, reality is intelligible. This has been the ground of Christian effort in life and knowledge throughout the centuries.

It thus follows that knowledge is one. There is no field of investigation which can be successfully and ultimately isolated from the other disciplines which go to make up the totality of man's knowledge-experience. When this is attempted, we are all acquainted with the tragic results that ensue. During the last world war the world was faced with the spectacle of men of science co-operating with demagogues to perpetrate the most inhuman types of brutality. When questions were later put to these men on the subject, they calmly responded that, for them, science is an end in itself — as long as the investigators and investigations of science are protected, it makes little difference to what use the results are put.

Modern man the world over recoiled in dismay before this inconceivable callousness of spirit, unaware that this was the exact result entailed by his own philosophy, for he had himself cast his vote for a universe in which one discipline could be completely isolated from the judgment of others. Natural science could thus be carried on completely independently of theology and philosophy.

Even in the evangelical Christian church, long since warned by the Scripture against conformity to the world, a deadly conformity has taken place. In the spirit of our age, Christians have been guilty of splitting off one area of thought from another so that, as in our secular universities, it has become more and more difficult for one department in a Christian institution to con-

verse with another. This is foreign to the whole genius of Christianity: knowledge is not divided.

So it is that in this journal effort we are attempting a combination of collegiate-seminary subjects that will bring together the various disciplines that they may be seen as only individual aspects of the one truth. Therefore, because the universe is one and knowledge is one, our goal is that the many aspects of intellectual endeavor may be recognized as one. This is an unavoidable corollary of the Christian position.

It is our hope that this effort as manifested in the birth of *The Gordon Review* may be only the beginning; that this emphasis may become a vital urge in Christian thinking; and that it may possibly be the forerunner of similar efforts on the part of evangelical Christian institutions throughout our nation and the world.

— Lloyd F. Dean

OLD TESTAMENT QUOTATIONS IN THE NEW TESTAMENT

ROGER NICOLE

The study of the Old Testament quotations in the New Testament has led many authors to view them as an argument for plenary inspiration. The frequency of such quotations, the authority ascribed to them, and the formulae of introduction used do indeed tend to indicate on the part of the New Testament authors a great confidence in the divine origin of Old Testament Scripture. On the other hand, the freedom with which the quotations are adduced and the alleged forced interpretations have been considered by many authors as an invalidation of plenary inspiration. Two main lines of argumentation have been followed in this respect:

1.) The authors of the New Testament, it is urged, having not taken care to quote in absolute agreement with the original texts of the Old Testament, cannot have held the doctrine of plenary inspiration. Otherwise, they would have had greater respect for the letter of Scripture.¹

2.) The authors of the New Testament, in quoting the Old Testament inaccurately as to its letter or improperly as to its sense, or both, cannot have been directed to do so by the Spirit of God.²

The first argument attacks mainly the plenary inspiration of the Old Testament; the second, that of the New Testament. It is the aim of this paper to examine this line of reasoning and to suggest certain principles on the basis of which the facts of the quotation can be harmonized with the doctrine of the plenary inspiration of the Scriptures. The writer does not aim to prove inspiration on the basis of the quotations, but rather his aim is to discover whether the facts of the quotations are such as to provide an irrefutable invalidation of the doctrine of verbal inspiration. It must be recognized at the outset that all of the following principles do not find application in each case, but it is the opinion of the present writer that singly or in combination, as the case may be, they provide a very satisfactory explanation of apparent discrepancies in almost all cases and a possible explanation in all cases.

1. *The New Testament writers had to translate their quotations.* They wrote in Greek and their source of quotations was either in Hebrew or in Aramaic. They had either to translate themselves or to use existing translations, and it is a well-recognized fact that no translation can give a completely adequate and co-extensive rendering of the original. A very literal translation often does not at all convey in the new language what the text of the original suggested. An elaborate paraphrase may carry over the meaning with considerable accuracy, but the very length of it is a departure from the

simplicity and the directness of the original text. Therefore, any one who does have to quote in translation, even if he is under inspiration, will recognize that there is a certain measure of change that will occur.³

When the New Testament authors wrote, there existed one Greek version of the Old Testament, the LXX. It was widespread, well known, and considered with great respect in spite of some defects obvious today. In most cases it was a fair translation of the Hebrew text and, furthermore, had distinctive literary qualities. It could be compared to our Authorized Version before the Revised Version was published. A conscientious scholar writing today in a certain language, will use for his quotations from foreign sources the translations which his readers generally use. He will not attempt to correct or change them unless there be a mistake bearing directly on his point. When slight errors or mistranslations occur, he generally will neither discuss them, because he would then direct the reader's attention away from his own point, nor correct them without notice, because he would risk arousing the reader's suspicion and thus again distract his attention from the main argument.

To quote from a version unknown to his readers and not trusted by them, or to overload his pages with perpetual teasing emendations of the version, which he employs, would be foolish, as it would debar him from the world and render his work futile.⁴

This is what many preachers and writers did who used the Authorized Version or Luther's Translation. They were often well aware that some verses were rendering rather inadequately the Hebrew or the Greek, but no blame can be laid on them as long as they did not actually base an argument on what is mistaken in the translation. So, the writers of the New Testament could use the Septuagint, the only Greek translation then existing, in spite of its occasional inaccuracy, and even in quoting passages which were somewhat inaccurately translated. They must never have profited by its errors, however, and we should not find any example of a deduction logically inferred from the Septuagint which cannot be maintained on the basis of the Hebrew text.⁵

Whenever they wanted to emphasize an idea which was insufficiently or inadequately rendered in the LXX, the New Testament writers may have retranslated wholly or in part the passage in question. In certain cases the reason why they introduced changes may remain unknown to us, but we are not on that account in a position to say either that a careful reproduction of the Septuagint is illegitimate or that a modification of that text is uncalled for. The whole case is well summarized by Gaussen:

First, when the Alexandrine translators seem to them correct, they do not hesitate to conform to the recollections of their Hellenist auditors, and to quote the Septuagint version *literatim* and *verbatim*.

Secondly, this often occurs when dissatisfied with the work of the Seventy, they amend it, and make their quotations according to the original Hebrew, translating it more correctly.⁶

In their use of the Septuagint, the New Testament writers have not attributed inspiration to this version. *A fortiori* they have not given inspiration to the translation of the passages they have used. They were inspired, however, to quote those texts as they did in the same way as they were inspired to record as they did the language of Herod, Pilate, the Pharisees, etc. Thus, we should be careful not to derive any conclusion from those parts of the quotation which are somewhat mistranslated and not to the purpose of the sacred writers, since their presence in the Bible does not sanction the possible mistakes of the Septuagint. S. Davidson has a serious misconception on this point when he writes:

It will ever remain inexplicable by the supporters of verbal inspiration, that the words of the Septuagint became literally inspired as soon as they were taken from that version and transferred to the New Testament pages.⁷

First, if it were inexplicable, it would not necessarily be false. Secondly, the supporters of verbal inspiration do not believe such and, therefore, cannot feel constrained to explain it.

Such a use of the Septuagint is not a case of objectionable accommodation. That the Inspired Word is accommodated to humanity is an obvious fact — it is written in human language, uses human comparisons, its parts are determined by the circumstances of those to whom they were destined at first, etc. But we cannot admit of an accommodation in which the inspired writers would give their formal assent to what is considered to be an error of their time (for instance, Matt. 12:40 concerning Jonah; Matt. 22:43 concerning David's authorship of Psalm 110, etc.) In the use of the Septuagint, however, we are so far from actual agreement with error that the best scholars of all times have used similar methods.

2. *The New Testament writers did not have the same rules for quotations as are nowadays enforced in works of a scientific character.* In particular, they did not have punctuation signs which are so important in this respect.

a. They did not have quotation marks, and thus it is not always possible to ascertain the exact beginning or the real extent of their quotations. They were not obliged by any means to start their actual citation immediately after the introductory formula, nor have we a right to affirm that the quotations end only when every resemblance with the source disappears. They may well, in some cases, have had in mind shorter citations than is generally believed and have then added developments of their own, using still some words taken from the same source but not intended as part of the real quotation.

Criticism of such passages as if they were intended as actual citations is evidently unfair.

b. They did not have any ellipsis marks. Thus, the attention is not drawn to the numerous omissions they made. These ellipses, however, are not to be considered as illegitimate on that account.

c. They did not have any brackets to indicate editorial comments introduced in the quotation. Thus, we should not be surprised to find intended additions, sometimes of one word, but possibly more important. (Cf. Ephesians 6:2).

d. They did not have any footnote references by which they could differentiate quotations from various sources. Thus, we find sometimes a mixture of passages of analagous content or wording without being justified in charging the writers with having mishandled or misused the Old Testament.

We readily recognize that the New Testament writers used many more of the above methods, whose legitimacy is universally granted, than a present-day author would do. The requirements of our punctuation rules make such practices tiresome and awkward, and one tries today to omit, insert, or modify as little as possible in quotations in order to avoid the complexity of repeated quotation marks, ellipses marks, brackets, etc.; but this common present usage is by no means a standard by which to judge the ancient writers. It would be interesting to apply to the New Testament quotations our rules of punctuation even far beyond what Nestle, Westcott and Hort, and others have done.

3. *The New Testament writers sometimes paraphrased their quotations.*

a. We might at first mention under this heading the use of expressions which are rather free translations of the Hebrew than real paraphrases. Such a procedure certainly needs no justification, since everybody knows that frequently a free translation renders better the sense and impression of the original than a literal one.

b. Slight modifications, such as a change of pronouns, a substitution of a noun for a pronoun or vice versa, transformations in the person, the tense, the mood or the voice of verbs, are sometimes introduced in order to suit better the connection in the New Testament. These are perhaps the most obviously legitimate of all paraphrases.

c. There are cases in which New Testament writers have obviously forsaken the actual tenor of the Old Testament passage in order to manifest more clearly in what sense they were taking it. In this, they are quite in agreement with the best modern usage as represented by Campbell's *A Form Book for Thesis Writing*; "A careful paraphrase that does complete justice to the source is preferable to a long quotation."⁸

d. In certain cases the reference to the Old Testament is not alluding to any single passage of the canonical books, but rather summarizes their general teaching on certain subjects, and this in terms which are proper to

the New Testament authors, although they want to express their indebtedness to, or their agreement with, the Old Testament as to the thought.⁹ This method of referring to the Old Testament teachings is obviously legitimate.

e. Finally, we have to consider the possibility that the writers of the New Testament, writing or speaking for people well acquainted with the Old, may in certain cases have intended simply to refer their readers or hearers to a well-known passage of Scripture. Then, in order to suggest it to their memory, they may have cited accurately some expressions contained therein which they may have placed, however, in a general frame different from that of the original. This is today, as of old, the ordinary method of alluding to a well-known citation.¹⁰

4. *The New Testament writers often simply alluded to Old Testament passages without intending to quote them.*

a. This distinction is of considerable importance and has been recognized by many authors; e.g., Patrick Fairbairn, who says:

It is proper, however, to state at the outset, that a very considerable number of the passages, which may, in a sense, be reckoned quotations from O.T. Scripture, are better omitted in investigations like the present. They consist of silent, unacknowledged appropriations of O. T. words or sentences, quite natural for those who from their childhood had been instructed in the oracles of God, but so employed as to involve no question of propriety, or difficulty of interpretation. The speakers or writers, in such cases, do not profess to give forth the precise words and meaning of former revelations; their thoughts and language merely derived from these the form and direction, which by a kind of Sacred instinct they took, and it does not matter . . . whether the portions thus appropriated might or might not be very closely followed, and used in connections quite different from those in which they originally stood.¹¹

Only in cases where New Testament authors have definitely manifested the purpose of citing by the use of a formula of introduction can we expect of them any strong measure of conformity.

b. Only that quotation which follows immediately such a formula is to be certainly considered as a formal citation. In such instances of successive quotations, *kai palin* always introduces an actual citation (Romans 15:11, I Cor. 3:20, Heb. 1:5, 2:13, 10:30). But with *kai* and *de*, or in the case of successive quotations without any intervening link, criticisms are quite precarious, since it is always possible to answer that no formal quotation is intended.¹²

c. Even when a definite formula points directly to an Old Testament passage, we will not expect strict adherence to the letter of the source when this quotation is recorded not in direct discourse, but in indirect discourse, whether it be with *hoti*, with *hina*, or with the objective construction in

the accusative. In such cases we often meet with remarkable verbal accuracy, but we cannot criticize departure from the original when the very form of the sentence so naturally allows for it.

d. We must also consider as in a special category the quotations which report not the word of Scripture itself, but sayings of individuals recorded in Scripture. In such cases, the forms of *lego*, *eipon*, etc., which generally introduce a citation, may very well be part of the narrative, and the saying itself, an informal reference not subjected to the same requirements of exactness as an actual quotation. One clear instance of such legitimate freedom is found in Acts 7:26 where a declaration of Moses is recorded, which is not found at all in the Old Testament and is certainly not intended as a quotation. The following passages may belong to this category: Matt. 2:23, 15:4, 22:32, 24:15, Mark 12:26, Acts 3:25, 7:3, 5:7, 26-28, 32-35, 40, 13:22, Rom. 9:15, 11:4, II. Cor. 4:6, Gal. 3:8, Heb. 1:5, 13, 6:14, 8:5, 10:30, 12:21, 26, 13:5, James 2:11, I Peter 3:6, Jude 14.

(to be continued)

NOTES

- ¹ Cf., among others, SAMUEL DAVIDSON, *Sacred Hermeneutics*, Edinburgh: T. & T. Clark, 1843, p. 513.
- ² Cf., among others, MARCUS DODS, *The Bible — Its Origin and Nature*, New York: Scribners, 1905, pp. 113, 114.
- ³ This line of consideration was strengthened by comments made at the Evangelical Theological Society meeting by President McRae of Faith Theological Seminary (December, 1954).
- ⁴ FRANKLIN JOHNSON, *The Quotations of the New Testament from the Old Considered in the Light of General Literature*, London: Baptist Tract and Book Society, 1896, p. 20.
- ⁵ Hebrews 10:5:7 is not, in the writer's opinion, an exception to this principle. Although the word *soma* is found in the context (verse 10), this does not appear to be derived from the form in which Psalm 40 has been quoted, and the reverse substitution of *otia* for *soma* in verse 5 would not impair the validity of the argument nor the appropriateness of the use of *soma* in verse 10.
- ⁶ L. GAUSSEN, *Theopneustia*, David Scott's Translation, Chicago: The Bible Institute Colportage Ass'n., n.d., p. 163.
- ⁷ S. DAVIDSON, *op. cit.*, p. 575.
- ⁸ W. G. CAMPBELL, *A Form Book for Thesis Writing*, New York: Houghton Mifflin, 1939, p. 15.
- ⁹ The following might be viewed as examples of such "quotations of substance", as Johnson calls them, Matt. (2: 23), 5: 31, 33, 12: 3, 5, 19: 7, 22: 24, 24: 15, 26: 24, 54, 56, Mark 2: 25, 9: 12, 13, 10: 4, 12: 19, 14: 21, 49, Luke 2: 22, 6: 3, (11: 49), 18: 31, 20: 28, 21: 22, 24: 27, 32, 44-46, John 1: 45, 5: 39, 46, 7: 38, 42, 8: 17, 17: 12, 19: 7, 28, 20: 9, Acts (1: 16), 3: 18, 7: 51, 13: 22, 29, 17: 2, 3, Romans 3: 10, I Cor. 2: 9, 14: 34, 15: 3, 4, (25-27), II Cor. 4: 6, Gal. 3: 22, 4: 22, Eph. 5: 14, James 4: 5, II Pet. 3: 12, 13.
- ¹⁰ This particular principle, as suggested by Pres. McRae, may sometimes account for the fact that the truths derived from the quotation cannot be logically deduced from the very words quoted, although it is contained in the general context from which the quotation is taken and of which the words quoted will be simply a reminder. Such a form of quotation would be almost necessary when there was no division of chapter and verse to make reference easy.
- ¹¹ PATRICK FAIRBAIRN, *Hermeneutical Manual*, 2nd Edition, Philadelphia: Smith, English and Company, 1889, pp. 390, 19.
- ¹² Matt. 5: 43, Luke 22: 37, I Peter 1: 17, II Peter 2: 22, and Matt. 5: 21, 21: 13, Mark 11: 17, Luke 19: 46 are examples of cases in which *kai* or *de* following the quotation introduces some additional material which itself can hardly be viewed as a quotation.

THE SCIENTIST AND THE UNIVERSE

THOMAS H. LEITH

The purpose of this essay is not to discuss the relationship between questions regarding the universe and the Scriptures, but to present to our readers an outline and brief analysis of the current discussion in scientific circles on the age of the universe. A later article will attempt a commentary on allied Scriptural themes.

We have first to ask ourselves two questions. What do we mean by the universe and what do we mean by its age? Let us look at the former first. All cosmological studies consider the present universe to be continually changing, and as a result, most assume it to have been considerably different in appearance in the remote past. The change is not only in orientation or arrangement, but in the nature of the material involved. Can we then extrapolate with any accuracy our present observations to this distant point? The writer considers this to be highly unlikely, though we can perhaps determine with some agreement when present rates of change began. Thus he feels we can find no data in natural science telling us when the universe 'began' nor what it may have been like shortly thereafter. One must remember that this difficulty does not make an origin meaningless; it simply shows what the writer considers to be the impossibility of dating it scientifically.

At this juncture it is commonly argued that such considerations as those above unduly complicate the simplicity of a constant change in appearance as time goes on. Indeed, it is added, we have every reason to believe that present changes are going on at a constant rate. In reply, it has been argued that some alteration must occur in the observed change-rate because a common conclusion inferred from a purely constant change is a point of creation, and this is contrary to the continuity demanded by scientific studies. The writer considers it to be much more logical to point out that our present data are insufficiently accurate to reveal early differences in rates which may well have been very nearly constant for a considerable time. One would be rash indeed to overlook the high probability that methods based on present conditions would differ markedly in result in very different situations. If the early universe were, for instance, stable or even contracting, it seems unlikely we could ever know for how long such a condition obtained; yet there is no reason to overlook the possibility of such states.

There is, however, another equally large problem in defining the 'universe'. We must decide what we mean by the 'material' making up the universe. This is not to raise metaphysical issues as to the nature of reality, but to ascer-

tain what we will call 'matter' and what we will not. Obviously this is not easily answered because in modern physical theory the states of matter change and, in addition, it is very likely that further research may reveal states more elementary than those we now know. This is often forgotten by those discussing the origin of the universe. They haven't decided what they will consider as 'existing' and what they will not. There are other purely philosophical problems, but the above will suffice to reveal my point. Until these criticisms are answered the writer will consider the questions he raises to be open.

From the above we see the impossibility of verification by science (not inclusive of Scripture) of the statement, 'the universe began at such-and-such-a time'. What then, the reader may ask, are all the books and articles on the subject talking about? The answer is simple. They are talking about what is going on now and how long similar things may have been happening. We must remember that we cannot settle this question either, scientifically.

At best, we can go back with current rates of change until it seems likely that similarities of conditions to those now holding start to break down. But we can say that very likely we may discuss a least possible age for the universe or, in other words, the length of its present phase of change. We can, on such a basis, know very little about what it may have been like previously or how long the universe may have 'been around' prior to the present stage. Instead, we will find general agreement among different methods, all basically dependent on a similar physical system, as to when the varied processes utilized by these methods began their current trend. Perhaps in the future we may find ways of detecting hidden indications in present conditions of differing situations in the past (much like finding from a car travelling at a fixed rate some evidence that it once went faster). At present it is unlikely that we have the necessary precision in observation, and if we did, this still could not give us logically the date of the 'beginning'.

Let us now look at some of these methods rather hurriedly. We may begin near home before we sail into the distant reaches of space. Our earth is obviously subject to more and better study than is possible for matter elsewhere. Many clues to its age (this is meaningful since we can easily define our terms in a way impossible for the universe as a whole) and to the time taken for various processes to have attained their present development are available. Early studies on the time taken for the oceans to have become as salty as they are now gave minimum dates around 180 million years.¹ A moment's thought regarding erosion, changes in landscape, and salt deposits should reveal the roughness of such an estimate. The same applies in part to studies of the extent of erosion in the past. A rough figure gives a minimum of about 350 million years as the age of the oceans.² Both can certainly be increased on reasonable grounds to many times the ages given.

Recent developments in atomic physics have opened up other much more precise methods. Radioactive materials are known to disintegrate at fixed rates under any temperature and pressure conditions likely to have obtained in the past. By knowing this rate and the amount of disintegration product, it is possible to calculate how long the breakdown has been going on, i.e., the time since the formation of the original mineral in a rock. (One may imagine, if preferred, a can of water dripping at a rate we can measure into a cup. To determine how long the can has been dripping, we simply divide the amount dripped by the quantity that drips in a fixed time.) Age determinations on specific rocks, by studying this radioactive decay, give figures for the oldest so far studied of around 2600 million years.³ These rocks lie in yet older formations, at present not susceptible to this type of study. The earth's crust must then be of somewhat greater age.

Russell, assuming all the lead in the crust to have come from the decay of Uranium and Thorium, gave an age for the crust as a whole of 2.4.6 billion years.⁴ The method, for various reasons, is only indicative of an order of magnitude. Rutherford, studying the time since the Uranium isotopes 238 and 235 were of equal amount, gives a figure of a few percent under five billion.⁵ Holmes, by analysing lead ores of different ages, obtained by very difficult analysis a dating of over three billion years.⁶ D. W. Allen of the University of Toronto has recently obtained a figure of 4.2 billion years using a similar technique. Error is about 10%. From what we have seen, it appears likely that the recent work on the age of the earth's crust is tending to around four billion years.

Scientific studies of the moon based on its tidal friction on the earth have calculated an age for the earth-moon system of about four billion years.⁷

With all the talk of the Hydrogen bomb, few realize that our sun is just a huge form of the same thing. Conversion of protons into helium nuclei gives the energy radiation on which life here on the earth depends. We know that since life was placed on earth this radiation can have varied very little or temperature extremes would have killed it. Present estimates based on stars similar to our sun lead to an age around five billion years.⁸

Meteorites can also be used to obtain a least age for the solar system. These wanderers are assumed to be the fragments of a disintegrated planet. Calculations of the time since that event, based on helium formed in the meteorite by cosmic rays, give a period of around 300 million years. Radiogenic lead studies date the original solidification of the parent planet at about 4.5 billion years.⁹

It would be much too complex here to go into the vast mass of data on star sequences, stellar energies, star clusters, and galaxy dynamics. Ages obtained from this data will of course vary with the nature of the star or galaxy and with the particular phenomenon any single method studies.

Figures given range up to ten billion years and down to less than a billion. The writer considers the former ages to err on the high side. It is a pity that we must pass so briefly over an area so vital to an understanding of astrophysical processes and which actually tell us much more about the nature of the universe than anything found only within our solar system. But so it must be.¹⁰

At this point in our discussion it is becoming apparent that many roads are leading to much the same order of result. This is an age for present processes of five billion years, plus or minus a billion, within the universe. Apart from our previous qualifications on this figure, there has arisen a school of opinion considering this rather meaningless. These are the so-called 'continuous creationists'. Before we discuss them we must mention the ideas of an expanding universe, since their theory stems from this.

Einstein has showed us that space and time cannot be separated. With any spatial concept there is allied a concept of time. Initially, he, for reasons we must pass over, postulated a static universe, *i.e.*, one with a constant size. To do this, he had to introduce an infinite time for its existence in its present form. Observation showed this to be improbable. Distant stars are observed receding from us and from each other like spots on an expanding balloon. The rates at which they do so apparently depend on their distance from us. The farther they are away, the faster they appear to move. We believe this because of the so-called Doppler red-shift in which the spectra of the receding stars show shifts toward longer wave-lengths than if they were not moving. This is apparently in proportion to their relative velocities of recession. (See any elementary physics text for the principle involved). Knowing the relation between shift and velocity, it can be noted that the outer galaxies are travelling away from us at enormous speeds, and others beyond the range of our present telescopes (about two billion light years, *i.e.*, the stars are seen as they were two billion years ago) likely are travelling faster.

It is usually assumed that we can work back to the time when all began to recede from one another, *i.e.*, the time at which the universe began to expand. The present figure is four to six billion years, but as we have seen, this would require extrapolating to zero space and time, an obviously possible but highly dubious procedure. Very likely the date is a lower limit because of many unknowns as to the state of an early universe. Some consider the process to be accelerating, which deceleration into the past would certainly increase this 'age' figure. The evidence for this is rather dubious but it may be there, or acceleration may have occurred in the past at a different rate.

The advocates of continuous creation believe that, although we have matter collected into congregations ranging from individual stars to super galaxies, the universe is essentially homogeneous and in addition does not change on the whole with time. This means that time has been, and will be,

infinite and that the universe is infinite in extent. Allied with this, for various reasons, such as the fact that relativistically the average density of the universe must be constant and that its large scale appearance should be the same, matter is considered to be continually created. For them, the red-shift reveals recession but not expansion.

This method leans heavily on modern atomic concepts, any changes in which might well cause critical difficulties in the theory. Then, too, whatever observations we have that might aid in settling this question do not appear to confirm the hypothesis. According to the continuous creation idea the sizes and masses of the nebulae should depend only on their ages, but this does not appear to be so. Distance and size (or age) should not be related, but we find that they appear to be. In addition, distant nebulae seem younger than this theory ought to allow. Hence, the theory seems unlikely even if ingenious. Also, events are occurring in space, continuously making time appear to have a directional property. This weakens the argument for infinite time having no real direction. Why the 'age' from the red-shift agrees so well with other age-data is far from clear either on this theory.

One other idea not yet mentioned has the universe pulsating by expanding and contracting with time. We are at present assumed to be in the expanding phase beginning roughly four billion years ago. Just how long this will last or how many cycles there have been is not made clear. Perhaps better telescopes might reveal contraction beginning somewhere beyond our present range of view! There remains the problem of whether or not our present phase contains a remnant of evidence of the last contraction. Until the present I consider this unverified.

It is becoming obvious that the problem of time plays a large role in all concepts of the universe. Much study has been given to this specific problem in recent years. One idea which we might mention in this connection is that of Milne. His 'kinematic relativity' suggests a time-scale varying with the age of the universe, implying a change with time of physical laws in space. He considers that we know this rate else we could never have any idea about the past. He obtains a figure of over three billion years for the development of the universe. De Sitter, on the other hand, 'curves' time as well as space making time on the outer reaches of the universe slower. Dirac requires yet another concept. For him, the gravitational constant (well known to all physics laboratory students) varies with time as the reciprocal of the age of the universe. We here enter deep waters as to how one settles whether any 'constant' in nature is really constant. What we see, is that in this lofty and abstruse field there is much disagreement and variation in concept.

Let us now survey the ground. We may first ask what went on before creation. Of this we can know nothing save with what light Scripture gives us. Science can tell us nothing. Indeed, the idea of a creation so disturbs

some scientists that, not only will they not talk about it, they attempt to explain it away. De Sitter's ideas have been used here and certainly the 'continuous creationists' operate on the principle that it is better to make science harder than it is to swallow the problem of creation. Indeed, in certain circles, it seems that the impossibility of testing certain ideas is going to make scientific verification of many things just as difficult as the concept of creation they desire to avoid.

When was the universe created? Was it infinitely long ago or was it on our time-scale at some definite past date. The writer considers the question meaningful but not capable of decision on *purely* scientific grounds. Regarding the various ideas as to the age of the current trends, there are different views as yet tenable only because as yet not proven false. Probably we ought, as is common in science, to choose the simpler concept, but it may not be easy to decide whether easier to use and easier to believe are the same thing. Most astronomers consider an expanding universe simpler to work with, but why it expands may not be easy to believe. An infinitely old or pulsating universe may be simpler for an agnostic to believe in as it can imply no creation, but it may not be easy to defend. The evidence does *not* require continuous creation or a pulsating universe, so the decision that it *must* do so is frequently predicated on considerations of other than a purely logical nature.

(It might be well to mention here that the so-called heat death of the universe, frequently discussed in this connection, is tied up to no definite time-scale but likely requires a closed space. This means a pulsating universe may fit it. This is a reason why the writer doubts the argument as proving a creation. He believes it on other grounds and considers the question of entropy not to contradict this, but not to demonstrate it either.)

It is hoped that this short paper may indicate the current climates of opinion in astronomical and geophysical circles on this question. As Christians, we should be conversant with what is going on in the scientific world and never forget that we alone have the true birthright of scientific knowledge. Our God is the Creator and Sustainer of the universe. Unlike Augustine's friend, we do not feel that God, before he made the heavens and the earth, prepared torment for 'pryers into mysteries'. Instead, we believe that ours is a beautiful privilege — that set forth in the eighth Psalm.

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A COMMENT ON AN INTERPRETATION BY PROF. CADBURY

THEODORE THIENEMANN

An age-old controversy concerning Matt. 6:22-23 and Luke 11:33-36 has been recently settled by Henry J. Cadbury ("The Single Eye." *Harvard Theological Review*, vol. 47, 1954, p. 69-74). His interpretation is based upon the well established fact that "evil eye" in Old Testament language is synonymous with "niggardliness". This can be shown by De. 15:9, 29:54, Prov. 23:6, 28:22. Because "evil eye" is associated with "niggardliness", so goes Cadbury's reasoning, "single eye" must be expressive of an opposite idea, characteristic of "generosity". He says: "... Using the word eye with the adjective evil in the familiar sense of niggardliness, [one] must retain for contrast the word eye and add a Greek adjective, which while not the usual opposite of evil, is its opposite in this connotation." Thus he considers the opposition of "if thine eye be single" vs. "if thine eye be evil" as referring to the two opposite attitudes relative to the "treasures upon earth": extreme greediness on the one hand, generosity on the other.

This interpretation seems to be corroborated by the preceding verses, Matt. 6:19-21, about treasures upon earth and treasures in heaven; and, also by the subsequent verse, 24: "Ye cannot serve God and mammon". In the positive formulation of his findings, however, Cadbury is not so outspokenly definite as one would expect, according to these premises. He asks: "But is it certain that this sequel points to Matthew's supposed understanding of single eye as undividedness? I think here, as often, the key to the sequel is in its final word — mammon" (p. 72).

I do not think that the word "mammon" holds the key for the understanding of the opposition "single eye — evil eye". The reference to the opposition "generosity — greediness" does not explain why generosity should be equated just with "undividedness" and "single eye", especially, why the "single eye" should mean "full of light" while the evil eye means "full of darkness".

It is, indeed, a fact beyond doubt that "evil eye" is equated in OT language with "niggardliness"; e.g., "He that hasteth to be rich hath an evil eye" (Prov. 28:22). What kind of look does this "evil eye" actually mean? It means a look with almost shut eyelids; it may suggest the askance look, or a glance with one eye while the other eye is shut. In fact, the "evil eye" is "single", i.e., looking with one eye, or it is almost single by the "wink of the eye". The look is *askance* if one glances "sideways, obliquely, hence with disdain, envy or distrust", so Webster says. The wink of the eye conveys a twist of mind, used when the speaker wants to indicate that what he says should be understood by the hidden meaning implicated in his words. To *connive* (from Latin *connivere*, "shut the eyes") means, according to Webster, "to feign ignorance, to pretend not to look (at something distasteful or irregular). To co-operate (*with*) secretly, or to have a secret understanding (*with*)". In any case, the frowning expression with almost shut eyes means "to disdain", to *look down or despise* (from Latin *de-spicere*; *specere* means "to look"). The slanting look or the wink with one or both eyes reveals aggressive intention according to the OT language, e.g.: "He winketh with his eyes . . . frowardness is in his heart, he deviseth mischief continually, he soweth discord." It indicates the twist and duplicity of mind.

This word *duplicity*, from Latin *du-plex*, properly means "two-fold"; the same is true of the Greek *di-plous*. The Latin as well as the Greek term is expressive also of "double-minded, treacherous" just as our *duplicity* indicates double-dealing and deception.

The "evil" eye is called in NT Greek *ponēros*. It necessarily refers to the almost shut eyes, otherwise the sentence would not make sense: "But if thine eye be evil, thy whole body shall be full of darkness". I am not as sure as Cadbury seems to be that in Greek the eye called *ponēros* necessarily carries the same connotation as the eye called "evil" in OT language, i.e., "niggardliness." It seems to have this connotation in: "Is thine eye evil, because I am good?" (Matt. 20:15) However, the eye called in Greek *ponēros* seems really to be indicative of "double dealing" and duplicity (God and mammon). This meaning is in Greek generally described by the adjective *di-plous*, meaning "two-fold", characteristic of hypocrites, false prophets and wolves in sheep's clothing. The opposite of *di-plous* is *ha-plous* "one fold", and this is exactly the term used for the eye and translated as "single". The Latin equivalent is *sim-plex*. The "one-fold" eye does not at all mean "single" in the

sense of "one eye". The eye called *haplous* is expressive of simplicity (*haplous*) of mind, "singleness of the heart", so in Acts 2:26, Eph. 6:5, Col. 3:22: "not with eyeservice as menpleasers, but in the singleness of heart."

The "singleness" of the eye (or the look) indicates neither "undividedness" nor "generosity", though it does not preclude them. These are too specific approximations of "simplicity" which is in NT language the blessed quality of those who are nearest the kingdom of heaven. Realistically minded interpreters who cannot think otherwise than in terms of matter of fact objective realities, and seem to be blind and deaf to spiritual meanings, will never be able to explain or understand why, for example, the English *clean* developed from the same word which appears in German as *klein*, "small, little". The primary object of both words is obviously the child. The child is little and small, at the same time "clean", but only on the spiritual plane. "One-fold", Greek *haplous*, does not primarily apply to the eye at all. It is symbolic of the mind of the child which is pure and simple, the opposite of twisted duplicity. The expression of this simplicity in the eye cannot be other than the straightforward look with clear, wide-open eyes. If the light of the body is the eye, by this childlike look with wide-open eyes, the whole body "will be full of light" indeed.

The opposition of duplicity vs. simplicity does not preclude Cadbury's antithesis of generosity vs. niggardliness. Simplicity may be also generous; real generosity is simple. There is a parallel between the eyes and the hands. "Single" is the eye and the hand, if wide open, evil if almost closed. Niggardliness is therefore synonymous with "narrow-fisted". "And thine eye be evil against thy poor brother, and thou givest him nought; and he cry unto the Lord against thee, and it be sin unto thee . . . For the poor shall never cease out of the land; therefore I command thee, saying, Thou shalt open thine hand wide unto thy brother, to thy poor, and to thy needy, in thy land" (De. 15:9-11).

We shall better understand the forgotten language of the eye if we take into account the basic change in the symbolism of light which has been brought about by early Christianity: the change from daylight to candle-light as a symbol of the mystical "inner light" shining in darkness. In our text the Greek term *luchnos*, "candle, lantern, lamp", is used, representing the underlying original concept of "light". It has been so translated since the AV as "light of the body", while Cadbury prefers the rather verbatim version "the lamp of the body". The Greek term *phos* means, beside "day-light", the light of the candlestick, torch or lamp; it denotes the "light of the eyes", but it also means, especially in the plural *phota*, "window". The same holds true for Latin *lumen* which is also a term for "window". The scriptural text refers positively to the "inner light", making an equation between the body and the house.

We know through various parallels in Hebrew (Gen. 16:2), Greek, and many other languages that house is in view, understood by the analogy of the human body. This can be shown by the interrelationship between the Greek *demās* "body", *demō* "to build", and *domos* "house". Our attitudes and unconscious reactions toward the object and the word *window* makes the repressed meaning of "evil eye" vs. "single eye" very clear. English *wind-ow*, from *wind-auga*, properly meant "wall (wind) eye". The shade of the window, as Venetian "blind", refers to the eyelid. The psychosomatic implication of the downcast look, if projected upon the "wall-eye", involves the pulling of the shade. In French and in all Romance languages the window shades are called for good reason, *jalousie* "jealousy". In Chinese picture writing "jealousy" is depicted by "woman at the window". In OT Hebrew, "window" is a noun derived from the verb "to lie in ambush." These instances can be multiplied; aggressive intention is present in all these terms.

Summing up this interpretation, Luke 11:34 will be understood by the following implication: "The light (window) of the body is the eye: therefore when thine eye is single (one-fold, simple, i.e. wide-open) thy whole body (house) is also full of light; but when thine eye is evil (almost shut) the body (house) is also full of darkness."

A BIBLICAL WORD STUDY OF THE CONCEPT OF LOVE

PHILIP C. JOHNSON

"God so loved the world that He gave His only begotten Son . . . A new commandment . . . that ye love one another . . . God is love." The heart of the Biblical message is love. The nature of God, the basis of our redemption, the relationship of God's children are all expressed by the one word "love." To borrow the phrase of Bishop Nygren¹, it is the "fundamental motif of Christianity." But what does it mean? What is love? We are inclined to echo Shelley, though with a somewhat different thought, "One word is too often profaned for me to profane it." Surely that which is basic to faith and life and God should not be lightly repeated so often that it becomes just a word, with so diffused a meaning that it is meaningless. It is with the desire to fill out the word with meaning that we turn to the Scriptures, that through the words and messages, the activities and purposes of love we might arrive at its very heart.

We begin our study with the words in Hebrew and Greek for "love" and the words closely related to love. It is obvious that etymology alone will not give the answer we are seeking, but words are the tools with which we work, the medium by which the idea is expressed. The message of love is framed in these words, and we must know as well as possible the distinctions and implications that are there.

The Hebrew words that are translated by the simple English "love" are as rich in meaning, as warm in their implications and as colorful as the Orient from which they come. The common word for love is *ahav*; in its various forms it is translated "love", "lover", "beloved", and twelve times by the word "friend". The word is almost onomatopoeic, for its root meaning, "to breathe", can be heard in the soft pronunciation.² It is difficult to remain coldly academic when such a word as this opens up the vistas of imagination. Does the word carry the meaning that love is as precious as breath, that it is as natural as life? Does it mean that as breath enters the body and brings life, so love enters and brings more life? May we not say at least that it is implied that love is as vital and fundamental to man as the air he breathes and reaches to the innermost recesses of his nature?

Closely connected with *ahav* in meaning and coming from the same root is the word *chavav*. Again the primary idea is that of breathing, but a new thought is added. *Chavav* bears with it the thought of breathing upon,

warming, cherishing; from the same root comes a noun for bosom, *chiv* (Job 31:33). Here, then, is love caring for and protecting the loved one. The depth of the word's meaning is revealed to us in Deuteronomy 33:3, the only place where this verb is used in the Bible. After forty years, from Egypt to Jordan, Moses writes that God "loves his people, and holds safe their sacred host" (Mof.). The Spanish beautifully translates this word "entranablemente amar," to love compassionately, "with bowels of mercy".

From an entirely different source comes the word *yadid*. The root meaning is not *love* at all but "boil, move, agitate". Taking the idea of love topically from this root meaning, we find *yadid* expressing the activity of love. It is the great word of the *Song of Solomon* where it is most often translated "beloved". The author seeks to express the desire of love, the agitation of the very presence of the beloved, and finds this word most appropriate. It is also used for the caresses and physical pleasures of love. In connection with this last usage, there is the word *dadayim*, "breasts," found in passages where love is actively, physically expressed. (Prov. 5:19; Ezek. 23:8). It is from this root also that David, "the man after God's heart" received his name. This word tells us that love stirs man deeply and makes him seek actual, physical contact with the beloved. This contact is not necessarily or even primarily a sexual or affectionate one. It is rather the thought of the desired nearness of the beloved, the warm living fellowship. "The beloved of the Lord shall dwell in safety by him; and the Lord shall cover him all the day long, and he shall dwell between his shoulders." (Deut. 33:12) This sense of nearness is borne out in the usage of the word to denote some family relationship such as uncle or aunt (Lev. 25:49; Ex. 6:20).

There is one more Hebrew word translated "love", and although it is far more often translated "fellow" or "neighbor", it adds a beautiful shade of meaning to love. The root of *raah* means "to feed"; from this root come words for "shepherd" and "friendship" and the name of that gracious type of the most true and deep friendship, Ruth. This is the word used in the *Song of Solomon* to address the beloved Shulammite. *Raah* tells us of the outgoing of love in feeding and meeting the needs and desires of the loved one.

In addition to the words for love itself, there are others which are more or less closely associated with love from which we may gain some insight into the meaning of love. These words may be placed in the three categories of *delight*, *desire* and *compassion*.

The two words used chiefly to express the thought of delight are *chafats* and *ratsah*. The former comes from a root meaning "to bend" and like our English word "incline" came to mean "incline toward" then "be favorably disposed", "delight in", "favor" and "love". It is used in Scripture to speak of matters as widely varied as the violence of Shechem toward Dinah (Gen. 34:19), the fatherly favor of Saul to the young David (I Sam. 18:22), and de-

light in things of the mind and the Spirit (Prov. 18:2; Jer. 6:10). It is the word from which Israel receives her new name, Hephzibah, (Is. 62:4) and by which Malachi describes the result of God's grace and love, "and all nations shall call you blessed; for ye shall be a *delightful* land" (3:12). *Ratsah* is distinguished from *chafats* by Girdlestone as indicating primarily the pleasurable emotion, whereas the latter word speaks of the prompting of the heart to take action in its delight.³ As in the case of *chafats* it is used both for the lowest and the highest delight; "they delight in lies" (Ps. 62:4) and "that he should delight himself with God" (Job 34:9). We are reminded that there is a beauty and joy and delight that comes with love and that may lead to it.

Words of desire range all the way from words of simple asking to those of inordinate lust. We have taken only a few of the principal ones to indicate the nature of that which is so commonly understood in its connection with love. The chief Hebrew word for "desire" is *avah*. It is closely connected both etymologically and in meaning with *agav* which is used to describe passion and lust. Both of these words are near relatives to the chief word for "love", *ahav*, and they indicate as does *ahav* a relationship to breathing. It may be that by this very fact the distinction is made between that which is mere desire, panting after some longed for object, and the gentle breathing of love. The Authorized version translates *agav* several times by "love", but always with a bad connotation (Ez. 23:11; 33:31, 32; Jer. 4:30).

We see the same close connection and distinction between desire and love in the word *chamad*. The word is used primarily for that which is precious and pleasant, then the desire or coveting that follows such things. The connection with love is shown by its use in *Daniel* for the man "greatly beloved." While it is used many times to speak of desire for land, for silver and gold, it appears mostly poignantly in Isaiah 53, telling of One who had "no beauty that we should *desire* Him."

Another most interesting word is *chashaq* which is always translated "desire" in a good sense, either of husband for wife or man for God. It comes from a root meaning "mighty" or "strong" and is often translated "join together", "cleave to" or "cling". This word tells of the strength of love and the closeness of those who love, as we read in the Song of Solomon that "love is strong as death," and in *Romans* 8, "Who shall separate us from the love of Christ?" The Authorized Version renders *chashaq* with the word "love" several times, always with the idea in the background of the protecting, redeeming power of God. (Deut. 7:7; Ps. 91:14; Is. 38:17). It is also very suggestive that the noun *chashuqim* is used for the poles or rods joining the boards of the tabernacle. Thus the tabernacle was held together by the strength of "love" even as the body of Christ which it foreshadowed.

As there is a close relationship between desire and love, so compassion and love come very close to another. Elizabeth Browning's sonnet urges,

“Neither love me for
Thine own dear pity’s wiping my cheeks dry.”

Yet while pity and love are not the same there is an inner harmony. We have only to remember how our Savior was “moved with compassion” to appreciate how close that harmony may be. Let us look briefly then at the Hebrew words for compassion to see what help they give us in understanding love.

Running through the Old Testament as a major theme is *chasadh*. It is translated “kindness”, “mercy”, “pity”, lovingkindness” and many others, but the best translation is the word “grace.” This is love expressing itself, giving freely and liberally, but always with this word is found the thought of mercy, love that is poured forth upon those who are in dire need. The more specific word for compassion is *racham* which comes from a root meaning “womb” or “bowels.” Primarily it refers to that physical state that comes with deeply felt pity or sympathy, that indescribable constriction of the inner organs that led our fathers to speak of “yearning of the bowels.” It may have been this physical experience that led the ancients to believe that these organs were the seat of affection and feeling, and explains the basis for such words as this. *Racham* also has the idea of “softness, helplessness and gentleness”, coming from the fact that the womb is typical of the woman with all her peculiar graces. In poetry, *racham* is used for “maiden”, implying the loveliness and tenderness of youth. From *racham* then, we are reminded that compassion and love affects the most vital part of one’s being, coming with tenderness and gentleness from the very heart.

This concludes our study of the Hebrew words for love, and now we turn to the New Testament to see what can be added to our understanding from the Greek. The Greek words, perhaps because of the character of the language itself, are not so colorful in their implications, but are more general. Nevertheless, by their very abstraction the words lift us above the commonplaces of our simple English “love.”

There are four words for love in the Greek language, each bearing its own peculiar shade of meaning, but each used also for love in general. Following the suggestion of Dr. Warfield⁴ we list these four words and their particular connotations as follows; *stergein*, nature; *eran* passion; *philein*, pleasure; *agapan*, preciousness. Of these four words, the first two are not found in the New Testament and only four times in the Septuagint; nevertheless, a study of them in connection with the Scriptural words should be profitable.

Stergein denotes that peculiar affection existing within a family, or any natural affection, such as that between a people and their king. This love seems to have no inceptions but is born with us. It is sometimes used to express deeply felt love that longs for a closer union with the beloved, as the bride sings, “Oh that thou wert as my brother, that sucked the breasts of my mother.” (Song of S. 8:1) This love is a part of our nature, and without it

we seem to lose something of humanity. Thus, in those two fearful indictments by Paul of his day and the days to come, (Rom. 1:31; I Tim. 3:3) we read of those who are *astorgos*, "without natural affection." These are men who have not only turned away from God, but have lost even that love which should unite them to their own families.

Eran, although it is used of other phases of love, is especially employed to denote passion, physical and sexual desire as well as passion for all that is highest and best. It is true that there is a love, or so called love that is nothing but passion, but it is also true that there is a passion that is nothing but love, and *eran* is used to speak of both. In an interesting comparison with *philein* in Plutarch, we read that "Brutus was liked (*philein*) by the masses for his virtue, but loved (*eran*) by his friends."⁵ Warfield comments that "in passages like this *eran* is exalted above *philein*, not *philein* depressed below *eran*. Both words mean love, and what is intended to be expressed by *eran* is that high love of exalted devotion which, from this point of view soars above all other love."⁶ Plato reaches the acme of his system with his doctrine of Eros as the way by which man is delivered from the prison house of the body and the world and is united with the gods. In spite of the exaltation of the idea of love that is found in *eran*, it was widely used for the most erotic practices, and it may be that these baser associations barred it from use in the New Testament. We do not enter here into the further reason advanced by Nygren, that the New Testament presented a new and more profound idea of love for which it employs the word *agape*. Nevertheless, from *eran* we gain a valuable insight into the meaning of love. We find that there is an absorbing occupation with the beloved, a deep interest that makes the most minute details of the loved one's life important to the lover. In this word is recognized that burning longing, that passion, if you will, of the lover to be united to his beloved.

The last two words, *philein* and *agapan*, are the two great love words of the New Testament. Since they are both used many times over and both bear all the many shades of the rainbow love, there has been a long and sometimes enlightening controversy concerning the exact and separate connotations of the words. Without entering into the controversy, we will here give those few matters that seem certain and that will aid us in finding the meaning of love.

Philein is the more general of the two words and is found less frequently than *agapan* in both verb and noun form in the New Testament and also the Septuagint. *Philein* is translated "love" twenty-two times and "kiss" three times in the New Testament, compared with the translation of *agapan* one hundred and thirty-five times as "love" and seven times as "beloved." In the Septuagint *philein* is used only thirty-six times, while *agapan* is found two hundred and sixty-six times. On the other hand, *philein* is often compounded

with other words, several of which, such as "philosophy" and "philanthropy", have become common in English. As we have noted above, *philein* seems to denote the pleasurable nature of love and *agapan* the preciousness. An interesting passage in Xenophon contrasts the two words in their separate meanings. Socrates is advising the young Aristarchus whose farm is overrun with poor relations who seem to make only trouble. Socrates says,

"Matters are now, as I see it, that neither you love (*philein*) them nor they you, you believing them to be hurtful to you, and they thinking that you are burdensome to them; and from these things danger increases and there is enmity and the former graciousness is lessened. But if you will direct them so that they are actively working, you will love (*philein*, get along with) them seeing that they are useful to you, and they love (*agapan*, appreciate) you, realizing your goodness to them."⁷

Aristarchus takes the advice and later reports to Socrates that "They indeed were loving me (*philein*) as their kind relation, and I was loving them (*agapan*) as valuable to me."

There are not two different kinds of love described by these words, but two different approaches to love. *Philein* indicates an approach through the pleasure that the object of affection affords, those agreeable traits that attract and draw the lover into a fuller, deeper companionship. It is natural also that there was the tendency to carry over this meaning of *philein* from the sentiment of love to its expression in outward act. Thus we have the word used for the kisses and caresses of love. *Agapan*, on the other hand, indicates an approach to love through realization of the merit of the loved one, an understanding of those qualities that set the beloved apart from all others. The derivation of the word suggested by Dr. Mantey, from *agan*, "very much" and *paos*, a "kinsman" by marriage rather than by birth, therefore "very much a kinsman"⁸ also denotes the mingling of high appreciation with the close relationship that results. Although *agapan* is used at least twelve times in the Septuagint to describe sexual love, it came more and more to be used of the very highest expression of love. The two words are used in the New Testament with much the same meaning. They are differentiated fundamentally not by expressing a higher and lower love but rather two different ways by which love is approached and two different aspects of the one love.

The Greek words for desire add little to the meanings already obtained from the Hebrew. The principal word, *thelein*, implies design and purpose and we find it most often translated "will". Two other words are *hedone*, from which comes "hedonism" and from its ancient root, *swad*, our English "sweet", and *oregein*, meaning primarily "to stretch out after." In both of these there is expressed the beauty and pleasureableness of the object of love and the zealous grasping for it.

The Greek words of compassion add further beauty to our thoughts of love. *Charis*, the Greek word for "grace" is comparable to the Hebrew *chesedh*, but bears with it the root idea of rejoicing, the joy and pleasure of giving and receiving in the free intercourse of love. *Splanchnizomai*, "have compassion" is exactly the same both in root and meaning as the Hebrew *racham*, both coming from the basic idea of the "womb." The last words of compassion in Greek, however, bear a thought that is not found in Hebrew. *Sympathein* and *metriopathein* denote "suffering with", being so touched with the suffering and need of another that we ourselves seem to be in sorrow and want. *Oikteirein* comes from the root "to weep, to mourn", hence to weep with another in fellow suffering. There is a distinction, of course, between compassion and love, but so close are they that one passes almost imperceptibly from sympathy that draws near to suffering to love that draws heart to heart.

The words we have studied do not give us the meaning of love, but they do indicate some of the essential qualities of love. They tell us what love has rather than what it is. Further color might be added by studying the root and implications of the love words of other languages, but we already have in our hands the materials by which a deeper study of the meaning of love may be carried on in the Bible. It is possible and altogether probable that as we study the usage of the words in context to express men's thoughts and God's Word, the root ideas may be left far behind. We cannot help feeling, however, that involved in these words that speak of passion, tenderness, understanding, strength and life itself there are the great truths that we shall find woven together in the final exposition of the meaning of love.

NOTES

¹ NYGREN, A., *Eros and Agape*.

² I am aware that the root of *ahav* and some of the other words is somewhat obscure but I have chosen the most likely meaning, For *ahav*, cf. J. Zeigler, *Die Liebe Gottes bei den Propheten*.

³ GIRDLESTONE, R. B., *Synonyms of the Old Testament*.

⁴ WARFIELD, B. B., "Terminology of Love in the N.T.," *Princeton Theological Review*, January, 1918.

⁵ PLUTARCH, *Brutus*, Ch. 29.

⁶ WARFIELD, *op. cit.*

⁷ Xenophon, *Memorabilia*, Bk. II, Ch. vii, sec. 9, 12.

⁸ Mantey, J. R., *Word Studies in Philo*, pp. 9-16.

PERSONALIA

Thomas Henry Leith is Assistant Professor of Science and Mathematics at Gordon College. He received his B.A. from the University of Toronto with a first in physics and geology. From the same institution he also received an M.A. in geophysics. His thesis was entitled, "Heat Flow in Some Mines at Kirkland Lake." For several years he did graduate work at the Massachusetts Institute of Technology. In this connection he did extended research on electromagnetic models. While at M.I.T., Professor Leith was a teaching fellow in geophysics. At present, he is attending Boston University as a doctoral candidate in philosophy. His dissertation is entitled, "The Idea of Time and the Geological Sciences." He is a member of the Society of Sigma Chi, The American Geophysical Union, The Society of Exploration Geophysics, The American Association for the Advancement of Science, and The American Scientific Affiliation.

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Professor Thienemann has been honored by membership in the Hungarian Academy of Sciences. He has also received the Wreath of Corvin, highest Hungarian distinction in the sciences. Among his publications are the following. In philosophy and social philosophy: "The Freethinkers of the Middle Ages," "Positivism and History," "History of Spiritual Development," "Principles of Literary Development," "Oswald Spengler and the Decline of the West," and "Goethe and the Idea of Immortality." In general and comparative literature: "The Words of Foreign Extraction in the Old Hungarian Literature," "The Civilization of the Bourgeoise in the Last Century of the Middle Ages," "Erasmus and Hungarian Humanism" (Inaugural Address to the Hungarian Academy of Sciences). In general and comparative linguistics: "Inscriptions of Germanic Origin in Pannonia," "The German Runic Inscip-

tions of Bezenve," "The German Loan Words of the Hungarian Language," a two-volume German-Hungarian dictionary, and thirteen textbooks.

Dr. Thienemann founded and edited the periodical, *Minerva*, which dealt principally with the history of ideas. He also edited for many years *The Review of Classical and Modern Philology*. He is a member of the Linguistic Society of America.

Lloyd F. Dean is Professor of Philosophy and Chairman of the Division of Philosophy at Gordon College. Dr. Dean received his A.B. in Th. from Gordon College and his B.D. from Gordon Divinity School. In the latter connection, he submitted a thesis on, "The New Liberalism." The A.M. (thesis "The Problem of Evil in Josiah Royce") and Ph.D. (dissertation: "The Place of Teleology in the Thought C.A. Strong") degrees were granted by Boston University Graduate School. He also attended Boston University, College of Liberal Arts; Andover-Newton Theological School; and Harvard University. He is a member of the following learned societies: The American Philosophical Association, The British Mind Association, The Evangelical Theological Society, The Metaphysical Society of America, The National Association of Biblical Instructors, and The Society of Phi Alpha Chi.

Philip C. Johnson is Professor of Bible and Chairman of the Division of Bible and Christian Education at Gordon College. Dr. Johnson is a graduate of Wheaton College, A.B., and the Northern Baptist Theological Seminary, B.D., (Thesis: "The Meaning of Love") and Th.D. The subject of his dissertation was "Critical Problems in Deuteronomy." He has taught at North Park College and Gordon Divinity School as well as at Gordon College. During the second World War, Dr. Johnson served as a chaplain in the United States Army and spent nearly three years in the Pacific area with the infantry. He is a member of the Evangelical Theological Society and the Society of Biblical Literature and Exegesis.

Roger R. Nicole is Professor of Theology at Gordon Divinity School. Dr. Nicole was born in Germany and reared in Switzerland. He received his A.B. from the Gymnase Classique, Lausanne, Switzerland; the A.M. (Licence d'enseignement ès lettres classiques) from the Sorbonne, Paris; the B.D., S.T.M., and Th.D. from Gordon Divinity School. The theses were (B.D.) "Jesus and the Bible, with Reference to the Inspiration of the Scriptures" and (Th.D.) "An Introduction to the Study of Certain Antinomies of the Christian Faith." He has also studied at the Institut Biblique, Nogent, and Harvard University. He is a member of the Evangelical Theological Society and a charter member of Phi Alpha Chi. Dr. Nicole's father is a minister in Switzerland; his brother, the director of a theological school in France.

REVIEWS OF BOOKS

Emil Brunner's Concept of Revelation, by PAUL KING JEWETT. An Evangelical Theological Society Publication. London: James Clarke & Co., Ltd., 1954. 190 pp.

This book attempts to analyze a facet of the thought of one of the leading exponents of the 'new theology', or neo-orthodoxy. For Brunner, "the great theme of Christian thought is the defining and establishing of the Christian concept of revelation"(1). Jewett is concerned with Brunner's concept insofar as it refers to the revelation of God in Christ. The analysis of this concept is presented in four different perspectives: history, faith, reason, and the Bible.

The problem of revelation in history is due to the tension between time and eternity. Brunner seems to draw heavily upon Kierkegaard's categories as he tries to save an historical revelation from the Scylla of Idealism and the Charybdis of historical Positivism. The resultant position is formulated not by casting oneself upon one or the other, but by asserting that an event may be true even though non-historical (44). Brunner illustrates this view by the contrast between 'scientific photography' and the 'portrait of faith'. The latter represents the thesis of the biblical writers who, according to Brunner, had no intention of photographic accuracy in their statements.

Parenthetically, it would seem more appropriate to use the term 'transcendent' in the introduction to the above section on history in view of the Kantian distinction (though Kant himself slipped at times) rather than 'transcendental' (7, 10, 11), for the former seems obviously intended.

Whereas history contains the problem of the objective mediation of time and eternity, faith relates to the subjective mediation of time and eternity. The individual participates in both time and eternity in the 'crisis' of faith, the object of which is the Christ now grounded in history. As Kierkegaard, Brunner finds in the decisive moment of the Christian faith "the place where the bolt from eternity pierces time" (50). This revelation by faith is indirectly communicated and is not rationally continuous with systematic thought. Actually it is the height of absurdity for "what could be more offensive to reason than the paradox of all paradoxes that God became a man" (55).

This consideration leads to the relation of revelation and reason. Brunner does not commit himself to an uncritical irrationalism, but he believes rational proof to be in a different category from revelation and, hence, not contradictory to it. Logical proofs operate in the area of immanent probability while revelation is confirmed as truth by the witness of God to the individual. There is no common ground, for "revelation knows no proof, other than its own proof" (112).

The Bible is of prime importance for the Christian, according to Brunner, for "the fate of the Bible is the fate of Christianity" (117). Brunner aligns himself rather closely to liberal criticism of the Scriptures, however, and repudiates any 'enslavement' to a 'paper pope' or to bibliolatry. It is a waste of time to attempt to derive from existing manuscripts an infallible original, for the ground of faith in Christ is not in the Scriptures but in Christ Himself addressing one through His Spirit in the Scriptures (135). The Bible strictly speaking is not the Word of God, but *becomes* the Word of God in the moment of revelation.

Jewett is well qualified to analyze Brunner's thought, having studied with him for a considerable period as a graduate student. His analysis of Brunner is not especially for the purpose of solving the problems arising from neo-orthodoxy, but rather to clarify them. This aim is admirably accomplished in this presentation of Brunner's thought. A concluding critique further carries out the purpose and is commendable in its lack of invective and in its penetration of the basic problem of Brunner's dialecticism.

In his attempt to formulate a means of transcending the Orthodox-Liberal antithesis, Brunner tries to correlate the dialectical method with an historical revelation and is seen to fail in the attempt. The mediation of absolute truth through error, and even falsehood, will not appeal to one who desires to 'give a reason for his hope'. Jewett points this out with lucidity in the four chosen aspects of Brunner's theory of revelation. Especially does this 'falling short' become obvious in the repudiation of reason, for if reason is not an aspect of the criterion of revelation then it has no criterion at all.

This book is the first of a series published under the auspices of the Evangelical Theological Society and is a worthy vehicle of introduction to the series. Those desiring aid in the understanding of the basic problems of neo-orthodox thought will be well rewarded in reading this volume.

!— Donald Tweedie, Jr.

The Christian View of Science and Scripture, by BERNARD RAMM. Grand Rapids. Wm. B. Eerdmans Publishing Co., 1954. 368 pp.

As a science professor, the reviewer is frequently asked to recommend an adequate study on the relationship of science to Scripture. Out of what has become a vast literature on the subject, I had found but one modern source of sufficient breadth and intellectual respectability to command the attention of the thoughtful Christian. This was the book *Modern Science and Christian Faith* by members of the American Scientific Affiliation. Now I have discovered a second, and indeed in some ways a more suitable, general reference.

The book is by the Director of Graduate Studies in Religion at Baylor University, well known in conservative circles for his *Protestant Biblical In-*

terpretation, *Types of Apologetic Systems*, and *Protestant Christian Evidences*. Trained in theology and philosophy, the writer may appear to have stepped at least partly out of his field in writing such a work. However, in our specialized times, this must happen to any zealous soul entering the lists in behalf of so vast a topic. As always, considered judgment can only be made on the product, and this product is good.

The author has two aims, "To call evangelicalism back to the tradition of the closing years of the nineteenth century" and "to show the relationship of Biblical data to scientific knowledge". It is not to be "an elaborate Christian philosophy of science nor a discussion of the relationship of Christianity to scientific knowledge on an extended basis". Within its scope, both former goals are well attained, but whether the call will be answered depends on the audience the work receives and the spirit in which it is taken. It is almost too much to hope for success with people steeped in scientific approaches of G. M. Price and H. Rimmer, and with fundamentalist periodicals too frequently filled with ill-thought, ill-informed, and ill-considered scientific and apologetic writings. But to venture is often to gain, and in the renaissance in Christian learning to be found coming from many of our conservative colleges and seminaries, it is to be anticipated that Ramm's work will take a valued place.

Any attempt to delineate specifically the argument of the book would require a far longer review than is possible here. We may say, however, that Ramm desires to rescue true science from an anachronistic limbo in the minds of many Christians and from the illicit grasp of a naturalistic world. It should be returned to a Christocentric creationism necessitating a harmony of science and evangelical theology. From this vantage point (indeed the only meaningful one) the conservative can now challenge the liberal in theology and the naturalist and humanist in philosophy to a hearing and restore true faith from its nadir of influence. To this end he deals specifically with what White called the warfare of science and theology, the problems involved, and the means of solution. Then he discusses in some detail the harmony of astronomy, geology, biology, and anthropology with Scripture as examples of the method.

It would be indeed rash to claim that Ramm, despite his vast research, has not missed some important material or that experts in the varied fields he covers will not disagree on certain of his interpretations of the data. This reviewer considers slight any oversights in research (at least in so far as his own study has revealed) and is in general agreement with most of the author's argument from the Biblical and scientific evidence. With some of the philosophical context I am in more disagreement (e.g., the limits of apologetics, the role of faith, and the arguments from design and purpose) but each reader must decide for himself as to adequacy of argument.

A large classified bibliography, a Scripture index, and an index of names

adds greatly to the value of the book. (In passing I might mention one error: the Cambridge historian, Butterfield, is twice called Butterworth).

I plan to make this book required reading in all my courses, and I envisage a wide (and I wish, universal) use in other Christian colleges and Bible schools. For the minister, student, and thoughtful laity the work is unsurpassed. Ramm has done the church of Christ a real service in producing a definitive work so necessary, and Eerdmans is to be commended most highly for adding yet another fine study to its already great heritage. For Christian and non-Christian alike, this should clear away many a cobweb. The gauntlet is dropped. Will the challenge be accepted? — *Thomas H. Leith*

Introduction to the Psychology of Music, by G. Révész. English translation by G. I. C. de Courcy. Oklahoma: University of Oklahoma Press, 1954. 261 pp. \$4.00

Not until recent years has there been a serious study of psychology and its relation to music. Only lately has it been recognized as an important adjunct to one's musical education. Because of the dominance of Seashore's work in this field, one is prone to associate musical psychology with musical talent tests. Obviously, this constitutes but a small segment of the subject and, despite the less well-known contributions by other men, much research yet remains to be done. Révész's scholarly book, therefore, is a welcome contribution.

The purpose of the book is to introduce "musicians, musicologists, students, conservatory pupils, and musical amateurs into the most important aspects and issues of the psychology of sound and music," with special emphasis on those topics which are usually relegated to a more or less incidental role in the training of a musician. In order to accomplish this rather ambitious task, Mr. Révész has dealt only briefly with such subjects as the emotional response to music or the psychological implications of musical aesthetics; however, this is more than offset by the diversity of subject matter.

Particularly noteworthy is the way in which the author approaches his subject. The book is divided into three sections. Part I deals with the physical basis of tone production. Part II has to do with some psychological problems concerning musical sound. Part III is concerned with the psychological significance of music. Observe that Mr. Révész has deemed it necessary to introduce the subject of psychology and music with a presentation of acoustics. Of course, acoustics, technically, has no bearing upon the psychology of music, but the author recognizes the fact that if one's understanding and enjoyment of music are to be developed to the fullest extent — as regards both perception and performance, a knowledge of vibration characteristics and the function of the auditory system is essential.

Of special interest to some will be the chapter in Part II which treats of the psychological influence of tonality. This concerns a popular view among musicians that each key, because of its distinctive character, is expressive of a particular mood — *i.e.* E major is strong and virile, G major, broad and bright, F major, soft and expressive, etc. Although many advocates of this view may remain unconvinced, the conclusion is reached that this theory has very little foundation in fact.

Even though this volume is intended for the professional musician and the serious amateur, it is not without interest for the less serious musician, as attested by the following topics treated in Part III: Musicality, the Unmusical Person, Aptitude and Talent, The Musical Prodigy, Blind Musicians, Relationship Between Mathematical and Musical Talent, Development of Musical Talent in the Advanced Age, Relationship Between Talented Parents and their Children, Musical Accomplishments of the Deaf.

Perhaps the most interesting and stimulating chapter of the entire book is that which deals with the musical accomplishments of the deaf. To most people these achievements probably are considered of little consequence. None the less, when confronted with the facts, one must look with awe upon such a composer as Beethoven, who wrote such great music as the "Missa Solemnis," the "Choral Symphony," six string quartets, and three piano sonatas after total deafness had descended upon him! It is true that Beethoven was blessed with normal hearing during the greater portion of his creative career, but one must certainly be amazed at the musicality of a person who is deaf from birth. Révész strongly suggests that the musical disposition of a deaf person is equal to that of one with normal hearing. Even though the aesthetic sphere of musical enjoyment is closed to them, the deaf may still apprehend certain elements of music, such as rhythm, tempo, and intensity, through the vibration stimuli that accompany the physical production of tone. This is evidenced by the testimony of Helen Keller and others, who apparently are moved deeply by musical performances.

As to musical talent and musicality in general, the author laments the fact that countless people who in childhood are given music instruction, later, as adults, subscribe to the following sentiment of Wilhelm Busch:

"Many find music not one of life's joys,
Because it's always linked up with noise."

Nevertheless, Mr. Révész concludes (rather idealistically) that music is capable of tremendous effects and everyone should be brought into touch with it, for despite one's lack of musicality, music will "raise the Ego into a sphere that is ordinarily closed to it, uplift it above the empirical world, and free it from the heavy burdens of existence."

— R. Rice Nutting

Genesis and Geology, by CHARLES COULSTON GILLISPIE. Cambridge: Harvard University Press, 1951. xiii + 315 pp. \$4.50.

This study in the interrelations of scientific thought, natural theology, and social opinion in Great Britain, 1790-1850, is an outgrowth of a Harvard doctoral thesis in the History of Science. The author is presently an Assistant Professor of History at Princeton University.

The book is a description of the background of social and theological ideas and the progress of scientific researches which, between them, produced the religious difficulties that afflicted the development of science in early industrial England. It considers the furor over Darwinism to be nothing new; rather, earlier discoveries had presented major challenges, not only to the literal interpretation of Genesis, but even more seriously to the traditional idea that Providence controls the order of nature with an eye to fulfilling a divine purpose.

Dealing in particular with the development of modern geology, the author attempts to show that the difficulties between science and Protestant Christianity, as reflected specifically in scientific literature, appear to be of religion (in a crude sense) *in* science rather than of religion *versus* science. In the well-written account which follows this preface Gillispie essays diligently to explain just what he means by this. Apparently the same lack of clarity as to the difference he cites has caused like difficulties to those frequently beclouding the debate from both sides of the fence today. The author considers the crises to have occurred *within* science as its many theologico-philosophical trappings clashed with one another rather than *between* scientists and theologians. The reviewer feels he has well proved his point, but might add that a parallel account of problems arising within the church and its accretion of scientific and philosophical ideas might be just as desirable and revealing. As a consequence, the lines of scientific reasoning and hermeneutical decision might be more clearly drawn and the resulting issues clarified.

It has frequently been a simple step from the idea of providential control to a deistic or theistic mechanism. Similarly, it is almost as easy to travel from some sort of scientific regularity and design to a vague Jeansian deity or an Einsteinian Spinozism. Gillispie provides data covering some six decades of more than a century ago to reveal just how easy is the transition. A few moments thought will readily show, I am certain, much similar theorizing today.

However, just as it is easy to surrender to such thinking, it is not difficult to rebel with a scientific positivism all too prevalent or with an unscriptural pietism from which conservatism is struggling to free itself. One can follow Gillispie in his underlying ridicule of Biblical belief or one can suspect his total faith in science and withdraw without further ado into some dogmatic shell.

The more sensible way would seem to be a realisation that in God's universe the only difficulties that arise in this context between His two revelations (natural and special) are ones of interpretation, and for many of these we are stupidly responsible. We must not reject either, but to the end that we may understand such parallels as exist, this volume may prove an aid.

The book, regardless of its many naivetés, is *must* reading for all interested in the history of the church and in the problems of modern science and apologetics. Copious notes and an excellent bibliographical essay add to the value of the work.

— Thomas H. Leith

The Pattern of God's Truth, By FRANK E. GAEBELEIN. New York: Oxford University Press, 1954. \$2.50.

The subtitle, "Problems of Integration in Christian Education," describes a central problem in the outworking of God-centered education today. The four lectures which comprise the book were the Griffith-Thomas Memorial Lectures for 1952 at Dallas Theological Seminary. They were later repeated at the Conservative Baptist Theological Seminary of Denver as the Lectures on Christian Thought and Ministry for the fall of 1953. The reader will instantly recognize that the "Christian Education" of the book title does not refer to the work of the local church, but rather to the whole area of education, Christian as opposed to secular, from the nursery to the university.

The author deserves great credit for presenting this problem of the integration of the philosophy of Christian education with the practice of Christian education to men on the seminary level. It is the evangelical ministry of America that must take the responsibility for spreading the philosophy and practice of the distinctively Christian school. Many men in local, evangelical pulpits today across the land are holding back in their interest and support of Christian schools because they do not understand the problems treated in this little book.

Chapter 1, "Integration and Truth," sets forth the unifying factor of Christian Education as God's truth in the Bible and in nature as opposed to the secularist's continuing fruitless search for a unifying factor. Gaebelain shows the historic, orthodox, Christian faith to have been the basic philosophy of education in early American education and the foundation of many American colleges and universities. This chapter proceeds to clear the way by suggesting what a Christian school is not. All Christian educators need to ask if theirs is a Christian school simply because it has a Bible study course, a daily chapel service, devotions at the beginning of each class period, and an annual evangelistic service. Just because there is so much lip service paid to Christian education without the penetration of integration in its operation is the

reason why every trustee, officer, faculty and staff member, student and alumnus of a Christian school should read and reread chapter one.

Chapter 2, "The Teacher and the Truth," speaks of the most vital of the three educational factors: pupil, curriculum and teacher. "No Christian education without Christian teachers" is the banner which must be hoisted over every Christian school. The surest way to disintegrate any Christian school is to engage a 'tolerant humanist', instead of an evangelical Christian, to teach. No matter where the Christian teacher has received his preparation, he finally must be possessed of a Christian life-and-world-view that integrates every area and iota of his life with the Christian position. From the heart devoted to God, from intimate fellowship with the Word, comes Christian truth illuminating the humanities, the arts, and the sciences in the classrooms of Christian schools. Gaebelien advocates no separate Bible Department as such, but the classes in Bible taught by teachers of other subjects. This, he maintains, would insure the integration of Bible and other subjects. This would be excellently done if each secondary teacher in a Christian school were a seminary graduate in addition to having had the necessary qualifying education to teach his particular subject in that geographical area. The author then takes up several objections which might be raised to this plan and proceeds to answer them.

Chapter 3, "The Subject and the Truth," holds more fascination for the Christian teacher than any other chapter. In it the author outlines the integration of three subjects: mathematics, literature, and music. One of the commonest objections to the claims of the Christian school is "How does 2 plus 2 differ in a Christian school from a secular school?" This is asked by the skeptic so as to deliver the final blow to the claim that a Christian education is of different quality from a secular education. The answer is partially given in this chapter. So also for literature. The passage from pp. 69-81 is worth the price of the whole book. Would that it were read and practiced by every confessor in Christendom and particularly by religious broadcasters who could do so much to help humble believers glorify God through music. This passage is the finest apology for Christian music the reviewer has read since A. Kuyper's *Stone Lectures, Calvinism*.

Chapter 4, "The Truth Beyond the Classroom," speaks in the blazing light of Christian truth in the matters of discipline, planning of religious services, and promotion or advertising. The favorite phrase of the author "doing the truth" is most appropriate here. How the school handles discipline, how it brings each student to a consciousness of complete commitment to Christ, what description is used of courses and degrees for promotion have as much to do with the basis of Christian education as the creed of the school itself.

The appendix of a book often suffers omission by the reader. One wonders

if this were written at the time of the book's printing and whether the material contained was at any time a part of the original lectures. I hope it was not. The lectures would have greatly suffered by including these three final pages. Two pages plead for the establishment of more Christian schools on the elementary and secondary level. The author states that it is more important for children to get Christian integration and orientation in the formation years than in the less pliable years of life. So far so good. I wish the last page had not been written because it is a denial of all the foregoing 117 pages of the book. It is a defense of secular education which is without God and without Christian integration for the child. It is just this refutation of Christian schools, their philosophy and their distinctives, that is enlarged, expanded and broadcast today as an obstacle to the progress and support of God-centered schools.

The six page index appears to be quite complete. The footnotes are at the end of each chapter instead of at the bottom of each page where I would rather see them. The book is small and neat, well printed and bound. May it have an exceedingly wide reading!

— Charles G. Schauffele

Scientific American Reader. New York: Simon and Schuster, 1953. xiv + 626. Illus. \$6.00.

In a day when to be educated is to be at least literate in science, it is unfortunate that good and reliable information is often difficult to obtain. Indeed, many scientists have added fuel to the fires of a prevalent attitude that the novice cannot understand science because of its difficulty. The *Scientific American* magazine (obtainable monthly at most good magazine stands) is an attempt to fill the need for "a medium of communication between scientists and their fellow men" and to correct the idea that science cannot be understood by anyone willing to try.

This *Reader* is a collection of fifty-seven of the best articles published in the magazine from 1948 through 1953. The subjects covered encompass those currently of considerable importance or promise. Most are written by scientists and all fulfill the demands of clarity for an intelligent reader. While one cannot expect an exhaustive popularization of the last word in the scientific realm, this *Reader* is as close as one is likely to come. Footnotes keep the articles quite well up to date and cross indexing and slight re-writing to prevent repetition increase the value considerably.

Be it nuclear physics, astronomy, anthropology, geology, psychology, or biology, the Christian desirous of keeping abreast of the import of science in our culture and of learning the wonders of God's creation has now no excuse for failure save a lack of diligence. Each reader can decide on his application of what he may find here, but he first must seek.

— Thomas H. Leith